What is claimed is:

1. A method for use in monitoring a search area, the method comprising:

providing a plurality of frames of image pixel data, wherein the plurality of frames of image pixel data include at least one frame of image pixel data representative of a corresponding field of view for each of a plurality of imaging devices, wherein each field of view of each imaging device comprises a field of view portion which overlaps with at least one other field of view of another imaging device; and

combining the plurality of frames of image pixel data into a single image representative of at least a portion of the search area by computing at least one homography transformation matrix indicative of a coordinate relationship between image pixel data for fields of view of at least one pair of the imaging devices that comprise field of view portions which overlap with each other.

2. The method of claim 1, wherein the fields of view of the plurality of imaging devices provide for coverage of the entire search area.

3. The method of claim 1, wherein the field of view portion which overlaps is greater than about 25 percent of the field of view of the imaging device.

4. The method of claim 3, wherein the field of view portion which overlaps is less than about 85 percent of the field of view of the imaging device.

5. The method of claim 1, wherein computing at least one homography transformation matrix comprises computing at least one homography transformation matrix based on a plurality of landmark points of commonality in the field of view portions which overlap for the at least one pair of the imaging devices.

6. The method of claim 1, wherein combining the plurality of frames of image pixel data into a single image representative of at least a portion of the search area further comprises using the homography transformation matrix to fuse the plurality of frames of image pixel data into a single image having a global coordinate system.

7. The method of claim 1, wherein the method further comprises positioning a plurality of imaging devices to cover an entire defined search area having an outer perimeter edge, wherein each field of view of each imaging device comprises a field of view portion which overlaps with at least one other field of view of another imaging device, wherein the field of view portion which overlaps is greater than about 25 percent of the field of view of the imaging device and less than about 85 percent.

8. The method of claim 7, wherein the field of view portion which overlaps is greater than about 35 percent.

9. The method of claim 7, wherein positioning the plurality of imaging devices comprises:

positioning a first imaging device at a first installation site such that a field of view for the first imaging device covers at least a region of the defined search area along at least a portion of the outer perimeter edge thereof;

positioning one or more additional imaging devices at the first installation site, if necessary, to cover with fields of view thereof one or more regions of the defined search area not covered by the field of view of the first imaging device; and

positioning one or more additional imaging devices at one or more additional installation sites, if necessary, to cover with fields of view thereof one or more additional regions of the defined search area not covered by the fields of view of the imaging devices positioned at the first installation site.

10. The method of claim 9, wherein positioning the plurality of imaging devices further comprises determining the limiting range of at least one of the plurality of imaging devices indicative of the useful coverage area for the imaging device, wherein the limiting range is based on the field of view of the imaging device and the resolution of the imaging device.

11. The method of claim 1, wherein the method further comprises tracking a moving object within the single image resulting in a moving object path for the moving object.

12. The method of claim 11, wherein the method further comprises determining whether the moving object path is normal or abnormal.

13. A system for use in monitoring a search area, the system comprising:

a plurality of imaging devices operable to provide a plurality of frames of image pixel data, wherein the plurality of frames include at least one frame of image pixel data representative of a corresponding field of view for each of the plurality of imaging devices, wherein each field of view of each

imaging device comprises a field of view portion which overlaps with at least one other field of view of another imaging device; and

a computing apparatus operable to combine the plurality of frames of image pixel data into a single image representative of at least a portion of the search area by computing at least one homography transformation matrix indicative of a coordinate relationship between image pixel data for fields of view of at least one pair of the imaging devices that comprise field of view portions which overlap with each other.

14. The system of claim 13, wherein the field of view portion which overlaps is greater than about 25 percent of the field of view of the imaging device.

15. The system of claim 14, wherein the field of view portion which overlaps is less than about 85 percent of the field of view of the imaging device.

16. The system of claim 13, wherein the computing apparatus is further operable to compute at least one homography transformation matrix based on a plurality of landmark points of commonality in the field of view portions which overlap for the at least one pair of the imaging devices.

17. The system of claim 16, wherein the computing apparatus is further operable to use the homography transformation matrix to fuse the plurality of frames of image pixel data into a single image having a global coordinate system.

18. The system of claim 13, wherein the plurality of imaging devices are positioned to cover an entire defined search area having an outer perimeter

edge, wherein each field of view of each imaging device comprises a field of view portion which overlaps with at least one other field of view of another imaging device, wherein the field of view portion which overlaps is greater than about 25 percent and less than about 85 percent of the field of view of the imaging device.

19. The system of claim 18, wherein the field of view portion which overlaps is greater than about 35 percent.

20. The system of claim 13, wherein the plurality of imaging devices comprise:

a first imaging device positioned at a first installation site such that a field of view for the first imaging device covers at least a region of the defined search area along at least a portion of the outer perimeter edge thereof;

one or more additional imaging devices positioned at the first installation site, if necessary, to cover with fields of view thereof one or more regions of the defined search not covered by the field of view of the first imaging device; and

one or more additional imaging devices positioned at one or more additional installation sites, if necessary, to cover with fields of view thereof one or more additional regions of the defined search area not covered by the fields of view of the imaging devices positioned at the first installation site.

21. The system of claim 20, wherein the computing apparatus is further operable to determine the limiting range for at least one of the plurality of imaging devices indicative of the useful coverage area for the imaging

device, wherein the limiting range is based on the field of view of the imaging device and the resolution of the imaging device.

22. The system of claim 13, wherein the computing apparatus is further operable to track a moving object within the single image resulting in a moving object path for the moving object.

23. The system of claim 22, wherein the computing apparatus is further operable to determine whether the moving object path is normal or abnormal.

24. A method for use in monitoring a search area, wherein the method comprises:

defining a search area having an outer perimeter edge;

positioning a first imaging device at a first installation site such that a field of view for the first imaging device covers at least a region of the defined search area along at least a portion of the outer perimeter edge thereof;

positioning one or more additional imaging devices at the first installation site, if necessary, to cover with fields of view thereof one or more additional regions of the defined search area not covered by the field of view of the first imaging device; and

positioning one or more additional imaging devices at one or more additional installation sites, if necessary, to cover with fields of view thereof one or more additional regions of the defined search area not covered by fields of view of the imaging devices positioned at the first installation site, wherein each field of view of each imaging device comprises a field of view portion which overlaps with at least one other field of view of another

imaging device, wherein the field of view portion which overlaps is greater than about 25 percent of the field of view of the imaging device.

25. The method of claim 24, wherein the fields of view of the imaging devices provide for coverage of the entire search area.

26. The method of claim 24, wherein the field of view portion which overlaps is less than about 85 percent of the field of view of the imaging device.

27. The method of claim 24, wherein positioning one or more of the imaging devices is performed based on at least a calculated limiting range of at least one of the imaging devices indicative of the useful coverage area for the imaging device, wherein the limiting range is based on the field of view of the imaging device and the resolution of the imaging device.

28. The method of claim 24, wherein the method further comprises:

providing a plurality of frames of image pixel data, wherein the plurality of frames of image pixel data include at least one frame of image pixel data representative of a corresponding field of view for each of the imaging devices; and

combining the plurality of frames of image pixel data into a single image representative of at least a portion of the search area.

29. The method of claim 28, wherein the method further comprises tracking a moving object within the single image resulting in a moving object path for the moving object.

30. The method of claim 29, wherein the method further comprises determining whether the moving object path is normal or abnormal.

31. A system for use in monitoring a search area, the system comprising:

a first imaging device positioned at a first installation site such that a field of view for the first imaging device covers at least a region of a defined search area along an outer perimeter edge thereof;

one or more additional imaging devices positioned at the first installation site, if necessary, to cover with fields of view thereof one or more regions of the defined search area not covered by the field of view of the first imaging device; and

one or more additional imaging devices positioned at one or more additional installation sites, if necessary, to cover with fields of view thereof one or more additional regions of the defined search area not covered by the fields of view of the imaging devices positioned at the first installation site, wherein each field of view of each imaging device comprises a field of view portion which overlaps with at least one other field of view of another imaging device, wherein the field of view portion which overlaps is greater than about 25 percent of the field of view of the imaging device.

32. The system of claim 31, wherein the fields of view of the imaging devices provide for coverage of the entire defined search area.

33. The system of claim 31, wherein the field of view portion which overlaps is less than about 85 percent of the field of view of the imaging device.

34. The system of claim 31, wherein the position of one or more of the imaging devices is based on at least a calculated limiting range of at least

one of the imaging devices indicative of the useful coverage area for the imaging device, wherein the limiting range is based on the field of view of the imaging device and the resolution of the imaging device.

35. The system of claim 31, wherein the system further comprises a computing apparatus operable to receive a plurality of frames of image pixel data, wherein the plurality of frames of image pixel data include at least one frame of image pixel data representative of a corresponding field of view for each of the imaging devices, and further wherein the computing apparatus is further operable to combine the plurality of frames of image pixel data into a single image representative of at least a portion of the defined search area.

36. The system of claim 35, wherein the computer apparatus is further operable to track a moving object within the single image resulting in a moving object path for the moving object.

37. The system of claim 36, wherein the computer apparatus is further operable to determine whether the moving object path is normal or abnormal.

38. A method for use in monitoring a search area, wherein the method comprises:

defining a search area; and

positioning a plurality of imaging devices at one or more installation sites such that corresponding fields of view for the plurality of imaging devices cover the entire search area, wherein each field of view of each imaging device comprises a field of view portion which overlaps with at least one other field of view of another imaging device, wherein the field of view

portion which overlaps is greater than about 25 percent of the field of view of the imaging device.

39. The method of claim 38, wherein the field of view portion which overlaps is less than about 85 percent of the field of view of the imaging device.

40. The method of claim 38, wherein positioning the plurality of imaging devices at the one or more installation sites comprises positioning one or more of the imaging devices or adjusting the field of view of one or more imaging devices based on at least a calculated limiting range of at least one of the imaging devices indicative of the useful coverage area for the imaging device, wherein the limiting range is based on the field of view of the imaging device and the resolution of the imaging device.

41. The method of claim 38, wherein the method further comprises:

providing a plurality of frames of image pixel data, wherein the plurality of frames of image pixel data include at least one frame of image pixel data representative of a corresponding field of view for each of the plurality of imaging devices; and

combining the plurality of frames of image pixel data into a single image representative of at least a portion of the search area.

42. The method of claim 41, wherein the method further comprises tracking a moving object within the single image resulting in a moving object path for the moving object.

43. The method of claim 41, wherein the method further comprises determining whether the moving object path is normal or abnormal.